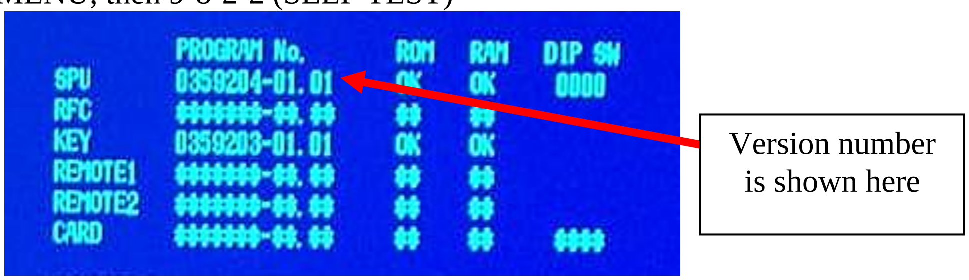
Configuring the FAR2XX7 Series Radar for use with MaxSea Time Zero

Introduction

In order to operate with MaxSea Time Zero AND NavNet3D, the FAR2XX7's processor software must be version 02.5x.
If you plan to connect one or multiple FAR2XX7(s) directly to MaxSea Time Zero without NavNet3D, you can use version 02.5x or version 03.xx

To check the software version of the FAR2XX7, perform the following steps:
Press or left click MENU, then 9-8-2-2 (SELF TEST)



If a radar software change is required, check the appropriate product pages' documents section at www.furuno.com for the correct procedures.

Check and Assign Radar Hostname(s):

When multiple radars are networked or inter-switched together, a unique number must be assigned to each processor. Note that for MaxSea to correctly detect the radar, one FAR2xx7 must be assigned to "RADAR1" (IP address = 172.31.3.6).
To assign the radar a number, hold "HL OFF" and press the "MENU" key 5 times. The "Initialize" menu will appear. Select "Installation" (4), then Radar NO (4). You may also want to set-up the Radar Antenna Position (5). Once the radar number is changed, the radar must be powered down and then turned back on to store the new setting. If applicable, follow the same procedure for each radar in the network, and then confirm that each radar number is unique. You cannot have two radars on the same network with the same name.
Note: Whenever a network change is made, it is recommended that all radars are powered down and restarted.

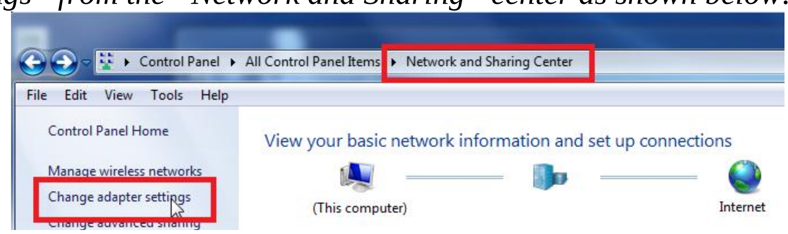
To confirm the network settings and communications between multiple radars, power up all of the radars in the network, then right click on the Radar Antenna box (top left corner). The antenna information for all of the available radars in a network will appear on the right in the menu panel. Be sure that all the radars on the network are all listed in this panel. If not, check the cables and the network settings.

Setup the Computer's IP address:

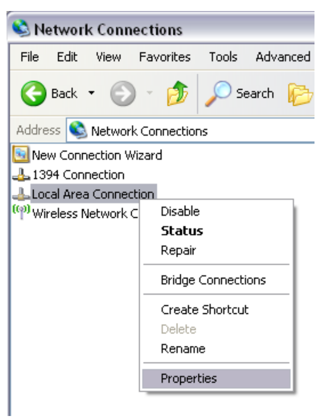
You will have to assign a manual IP address to the computer (usually 172.31.3.150). This IP must be unique and not already taken by another computer on the network.
To set up an IP address, open the Windows "Control Panel."
Open "Network Connections."



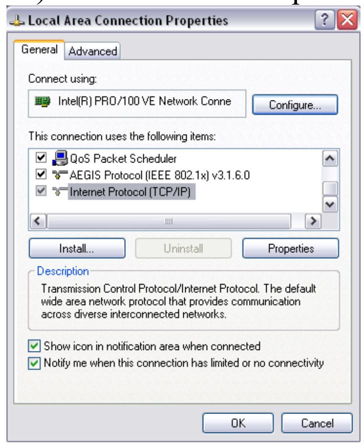
<u>Note:</u> If your operating system is Windows Vista or Windows 7, click on "Change Adapter Settings" from the "Network and Sharing" center as shown below:



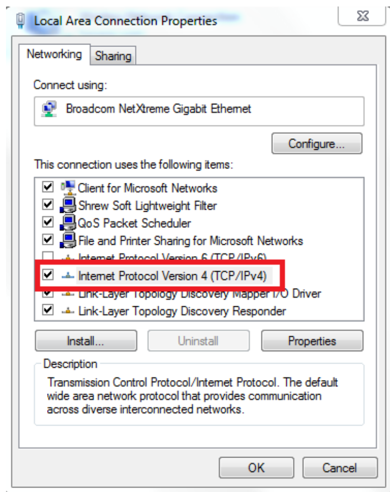
Right Click on "Local Area Connection" and select "Properties."



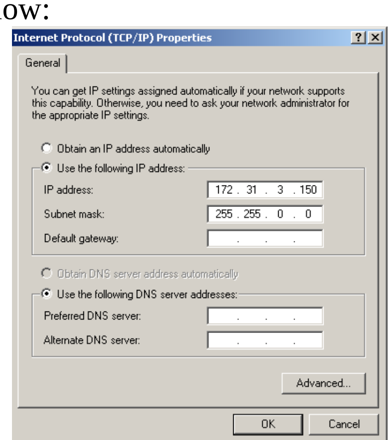
Select "Internet Protocol (TCP/IP)" and click on "Properties."



<u>Note</u>: Under Vista/7 select "Internet Protocol Version 4" as shown below



Fill the IP fields as shown below:



Click on OK to confirm the change. The new IP can take up to 20 seconds to be recognized.

Turn OFF any Firewall that could prevent data to be exchanged between the Radar and the PC. If you wish to leave the Firewall ON, make sure that MaxSea is authorize or in the firewall exception.

Note: If you plan to connect another computer, make sure that the IP address of the second computer is different (for example 172.31.3.151)

Navigation Information:

If MaxSea is directly connected to one or multiple FAR2xx7:

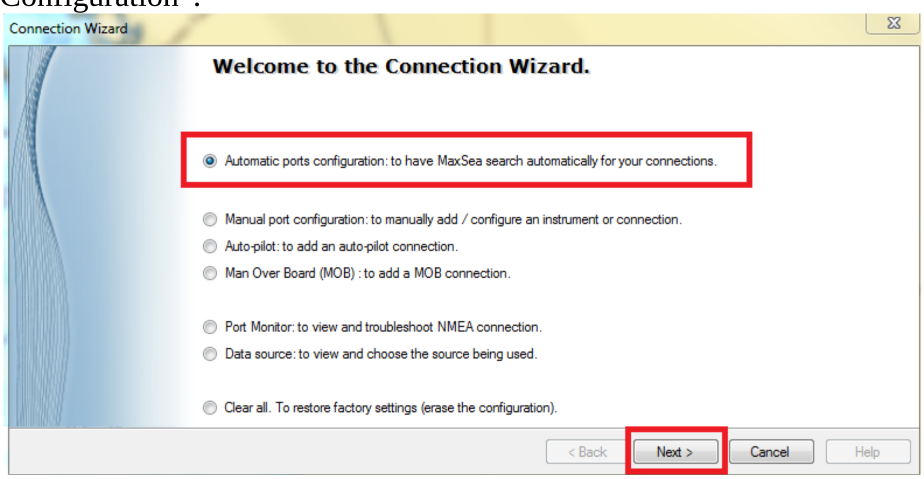
One FAR2xx7 can be set up to output Position, COG and SOG on the network. From the FAR2xx7 that has a GPS connected to it (serially), right click on the "Own Ship Position" box. Select ON for the "SIO Data LAN Output" (3).
Other instrument information such as AIS, Depth, and Wind will need to be connected serially to the computer (this information is not broadcasted by the FAR2xx7).
Note: The Heading is automatically and always transmitted with the Radar Echo on the network. There is no need to connect the Heading sensor serially to MaxSea.

If MaxSea is connected to FAR2xx7 together with NavNet3D:

When NavNet3D is used together with one FAR2xx7, MaxSea will automatically grab the navigation information (Position, AIS, Wind, Depth…) from NavNet3D over the network.

Configure MaxSea Time Zero:

Open MaxSea in "Navigation" mode (to enable the instrument acquisition), launch the "Connection Wizard" (from the MaxSea Menu Button) and perform an "Automatic Ports Configuration".



MaxSea will automatically scan for information on the network and for instruments connected serially (if applicable).

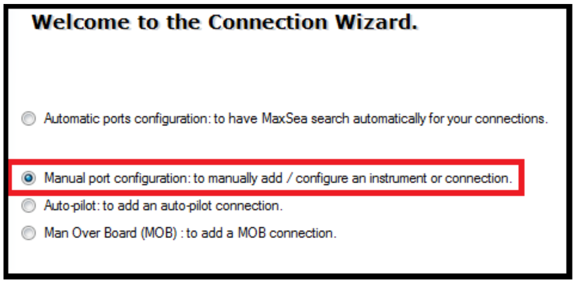
ARPA Information:

Configure the FAR2xx7

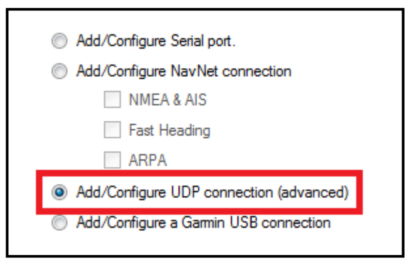
The ARPA target output must be setup through the LAN for all the FAR2xx7.
Hold "HL OFF" and pres the "MENU" key 5 times.
The "Initialize" menu appears.
First, select "ARP Preset" (6). Select "True" for "TTM Output" (2)
Select "Back" to return to the "Initialize" menu and select "Other" (8).
Set "INS" (5) to "LAN". Repeat this process for each processor on the network.

Configure MaxSea

Open the MaxSea Connection Wizard and select "Manual Port Configuration"



Select "UDP Connection":

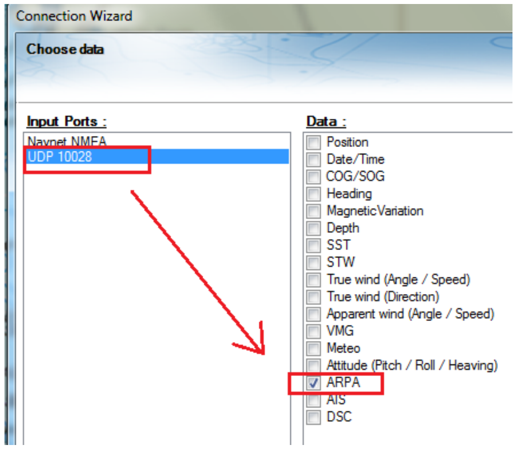


Select the Network Adapter corresponding to the computer IP address then type "10028" for the UDP port.



Note: If you acquire an ARPA target on the FAR2xx7, you should see $TTM sentences flow in the window.

Click on "Next". When MaxSea is done analyzing the port, the following window will appear. Select "UDP 10028" in the list and make sure that "ARPA" is checked.



Click on "Next" then "Finish" to finalize the configuration